

REMARKS/ARGUMENTS

These remarks are made in response to the Office Action of October 27, 2008 (Office Action). As this response is timely filed within the 3-month shortened statutory period, no fee is believed due. However, the Examiner is expressly authorized to charge any deficiencies to Deposit Account No. 50-0951.

Claim Objections

Claim 1 (assuming Claim 21 was meant by the Examiner) was objected to because of an informality.

Appropriate correction has been made.

Claim Rejections – 35 USC § 103

Claims 21-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Published Patent Application 2002/0032564 to Ehsani, *et al.* (hereinafter Ehsani) in view of U.S. Published Patent Application 2003/0195739 to Washio (hereinafter Washio).

Applicants respectfully disagree with the rejections and thus have not amended the claims to overcome the cited prior art.

Aspects of Applicants' Invention

It may be helpful to reiterate certain aspects of Applicants' invention prior to addressing the cited references. One embodiment of the invention, as typified by newly-presented Claim 21, is a method for creating a speech recognition application callflow.

The method can include placing a prompt into a workspace of a graphical user interface for creating the speech recognition application callflow; assigning an individual option and a pre-built grammar to the same prompt; treating the individual option as a

valid output of the pre-built grammar if the individual option is a potential valid match to a recognition phrase or an annotation in the pre-built grammar; and if the individual option fails to be a potential valid match to the recognition phrase or the annotation in the pre-built grammar, treating the individual option as a grammar independent from the pre-built grammar. See, e.g., Specification, paragraphs [0006], [0016] and [0017]; see also Fig. 1.

The Claims Define Over The Prior Art

The present invention can enable callflow designers to work more efficiently with lists of variables in a graphical callflow builder, particularly where users can create their own variable names. Furthermore, the present invention automatically evaluates options added to prompts in a graphical callflow when the prompt is using one or more existing grammars. The nature of this evaluation is to determine if the added options are present in one or more of the existing grammars. If not present, the added prompts are used as external referents for use in the graphical callflow and become part of a newly generated grammar. If present, the added prompts are only used as external referents for use in the graphical callflow and do not become part of a newly generated grammar.

For example, as shown in Fig. 3B of the instant application, for the prompt "For what time?", the callflow designer can select a pre-built grammar called time.jsgf. The designer can also add a new option called "midnight" in order to disambiguate "midnight" as a special case if spoken in response to the request for the reminder time. The callflow element 102 of FIG. 4 and the high-level flowchart of FIG. 1 illustrate the actions the method of the present invention would take in evaluating this new option as described above. If the new option "midnight" is not present in the pre-built grammar time.jsgf, it is used as an external referent for use in the graphical callflow and becomes part of a newly generated grammar. If the new option "midnight" is present in the pre-built grammar

time.jsgf, the new option is only used as external referent for use in the graphical callflow and does not become part of a newly generated grammar.

As already discussed in the previous response, Ehsani concerns a method for creating a recognition grammar for use with an interactive user interface in which a phrase thesaurus is used to construct one or more equivalent expressions of one or more formulated expressions and the recognition grammar comprises the collection of all of the expressions. The method of Ehsani automates the most laborious aspects of recognition grammar design, namely, the need to generate, either by anticipation or by empirical sampling, potential variants of responses to any given system prompt. Ehsani also eliminates the need for expensive user data collection and hand coding of recognition grammars. Further, Ehsani allows developers without specialized linguistic knowledge to design much more complex networks than conventional design techniques can support. See paragraph [0025].

However, although Ehsani has a number of advantages in enabling a developer to create more complex and better performing systems in less time and with fewer resources, Ehsani concerns a totally different problem from that of the present invention. It is noted that while Ehsani concerns how to automatically expand the expressions that can be recognized by the recognition grammars, the present invention does not concern the expansion of expressions recognized by the grammars, but rather the building of new grammars from individual options selected during the callflow design if the individual options are not already in the pre-built grammars.

Washio discloses a grammar update method for storing grammar data for speech interaction used for recognizing speech data and newly recognizing the speech data without using the grammar data, includes determining whether or not a new-recognition result in the newly-recognizing operation can be accepted, and in the case where the new-recognition result cannot be accepted, specifying a portion to be added and updated from

the stored grammar data, thereby adding and updating the grammar data. See the Abstract.

Clearly, Washio also concerns a totally different problem from that of the present invention. It is noted that the present invention does not concern updating the existing grammar data using new recognition results, but rather the building of new grammars from individual options selected during the callflow design if the individual options are not already in the pre-built grammars. It is also noted that in the present invention the individual option is not a new recognition result in the sense of Washio, but rather is added to a prompt in addition to a selected pre-built grammar during callflow design. For example, as shown in Fig. 3B of the instant application, in addition to the selected pre-built grammar time.jsgf, an individual option "Midnight" is also assigned to the prompt "For what time?" during the callflow design. The purpose of the present invention is to determine if the added individual option "Midnight" is a potential valid match to the recognition phrase or annotation of the pre-built grammar time.jsgf. If the individual option "Midnight" is a potential valid match to the recognition phrase or annotation in the pre-built grammar time.jsgf, treating the individual option as a valid output of the pre-built grammar; and if the individual option fails to be a potential valid match to the recognition phrase or annotation in the pre-built grammar time.jsgf, treating the individual option as a grammar independent from the pre-built grammar time.jsgf.

Accordingly, the cited references, alone or in combination, fail to disclose or suggest each and every element of Claim 21. Applicants therefore respectfully submit that Claim 21 defines over the prior art. Furthermore, as each of the remaining claims depends from Claim 21 while reciting additional features, Applicants further respectfully submit that the remaining claims likewise define over the prior art.

Applicants thus respectfully request that the claim rejections under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

Applicants believe that this application is now in full condition for allowance, which action is respectfully requested. Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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